

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Li et al. Group Art Unit:

Serial No.:

10/618,133

Examiner:

Filed:

July 11, 2003

Title:

APPARATUS AND METHOD FOR CONTINUOUS DEPYROGENATION AND PRODUCTION OF STERILE WATER FOR INJECTION

Mail Stop Patent Application Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

#### INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 CFR § 1.56, Applicants request that the references cited in the accompanying Form PTO/SB/08A (10-96) be considered by the examiner in the above-entitled application and made of record therein. Copies of the cited references are enclosed.

Respectfully submitted,

October 10, 2003

Date

Jøshúa S. Broitman Registration No. 38,006

OSTRAGER CHONG & FLAHERTY LLP 825 Third Avenue New York, NY 10022-7519 (212) 826-6565

CUSTOMER NO. 23566

### CERTIFICATE OF MAILING

The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 on the date set forth below.

October 10, 2003

Date

Roberto L. Golfez

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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet of

Complete if Known						
Application Number	10/618,133					
Filing Date	07/11/2003					
First Named Inventor	Lixiong Li					
Group Art Unit						
Examiner Name						
Attorney Docket Number	ARA-US-P1	_				

				U.S. PATENT DOCUM	MENTS		
Examiner Initials *	Cite No.1	U.S. Patent Document  Kind Code <sup>2</sup> (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	Α	6,585,890	B2	Li et al.	07/01/2003	Entire Patent	
	В	6,485,649	B1	Terava et al.	11/26/2002	Entire Patent	
	С	6,406,273	B2	Wong	06/18/2002	Entire Patent	
	D	6,247,903	B1	Wong	06/19/2001	Entire Patent	
	E	6,167,951	B1	Couch et al.	01/02/2001	Entire Patent	
	F	6,094,523		Zelina et al.	07/25/2000	Entire Patent	
	G	6,086,822		Trinidad	07/11/2000	Entire Patent	
	Н	6,030,436		Barclay	02/29/2000	Entire Patent	
	1	5,949,958		Naperkowski et al.	09/07/1999	Entire Patent	
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	Р	5,401,499		Hirayama et al.	03/28/1995	Entire Patent	
	Q	5,401,421	-	Blum	03/28/1995	Entire Patent	
	R	5,279,821		Hirayama et al.	01/18/1994	Entire Patent	
	S	5,242,595		Morgart et al.	09/07/1993	Entire Patent	
	Т	5,202,246		Kruse et al.	04/13/1993	Entire Patent	

	FOREIGN PATENT DOCUMENTS									
Evernines	Cite	For	eign Patent Do	ocument	Name of Patentee	Date of Publication of	Pages, Columns, Lines,			
	No.1	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> ( <i>if known</i> )	or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T <sub>6</sub>		
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Examiner Signature	Date Considered	

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<sup>1</sup> Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark hee if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

10/618,133 Application Number Filing Date 07/11/2003 First Named Inventor Lixiong Li Group Art Unit **Examiner Name** 

(use as many sheets as necessary)

Sheet

ARA-US-P1 Attorney Docket Number

			U.S. PATENT DOCUM	MENTS	
Examiner Initials *	Cite No.1	U.S. Patent Document  Number  Kind Code (if known)	Name of Patentee or Applicant	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	U	5,186,020	Rockenfeller et al.	02/16/1993	Entire Patent
	V	5,166,123	Agui et al.	11/24/1992	Entire Patent
	w	5,104,546	Filson et al.	04/14/1992	Entire Patent
	X	5,032,265	Jha et al.	07/16/1991	Entire Patent
	Y	5,026,258	Mosley	06/25/1991	Entire Patent
	Z	5,021,391	Agui et al.	06/04/1991	Entire Patent
	AA	4,958,658	Zajac	09/25/1990	Entire Patent
	BB	4,935,150	lida et al.	06/19/1990	Entire Patent
	СС	4,913,827	Nebel	04/03/1990	Entire Patent
	DD	4,909,942	Sato et al.	03/20/1990	Entire Patent
	EE	4,833,888	Kerner et al.	05/30/1989	Entire Patent
	FF	4,883,596	Agui et al.	11/28/1989	Entire Patent
	GG	4,858,643	Vavra et al.	08/22/1989	Entire Patent
	НН	4,810,388	Trasen	03/07/1989	Entire Patent
	II.	4,772,390	Kawai et al.	09/20/1988	Entire Patent
	JJ	4,759,909	Joslyn	07/26/1988	Entire Patent
	KK	4,752,389	Burrows	06/21/1988	Entire Patent
	LL	4,673,733	Chandra et al.	06/16/1987	Entire Patent
	MM	4,648,978	Makinen et al.	03/10/1987	Entire Patent
	NN	4,610,790	Reti et al.	09/09/1986	Entire Patent

	FOREIGN PATENT DOCUMENTS									
Examiner	Cite	For	eign Patent Do	ocument	Name of Patentee	Date of Publication of	Pages, Columns, Lines, Where Relevant			
Initials*	No.1	Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> ( <i>if known</i> )		or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T <sub>6</sub>			
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10/618133

07/11/2003

Lixiong Li

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Application Number

Filing Date

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First Named Inventor Group Art Unit

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**Examiner Name** Sheet of 5 Attorney Docket Number ARA-US-P1

				U.S. PATENT DOCUM	MENTS		
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	00	4,548,716		Boeve	10/22/1985	Entire Patent	
	PP	4,547,289		Okano et al.	10/15/1985	Entire Patent	
	QQ	4,495,067		Klein et al.	01/22/1985	Entire Patent	
	RR	4,381,239		Chibata et al.	04/26/1983	Entire Patent	
	SS	4,276,177		Smith	06/30/1981	Entire Patent	
	TT	4,261,834		deWinter	04/14/1981	Entire Patent	
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	W	4,070,289		Akcasu	01/24/1978	Entire Patent	
	ww	4,069,153		Gunther	01/17/1978	Entire Patent	
	XX	3,870,033		Faylor et al.	03/11/1975	Entire Patent	
	YY	3,860,494		Hickman	01/14/1975	Entire Patent	
	ZZ	3,648,438		Arbogast	03/14/1972	Entire Patent	
	AAA	3,601,378		Hurst	08/24/1971	Entire Patent	
	BBB	3,068,794		Morris et al.	12/18/1962	Entire Patent	
	ccc	2,362,724		Shea	11/14/1944	Entire Patent	
	DDD	2001/0050215	A1	Li et al.	12/13/2001	Entire Patent	
	EEE	2003/0164339	A1	Li et al.	09/04/2003	Entire Patent	

					N PATENT DOCU	MENIO		
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Office <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Т <sub>6</sub>	
	FFF	JP	4-114661	1	Yasushi et al.	04/15/1992	Entire Patent	
	GGG	JP	1-203046	•	Jun et al.	08/15/1989	Entire Patent	
	HHH	JP	59-112888		Kazuo et al.	06/29/1984	Entire Patent	
	111	JP	57-171403	4	Atsushi et al.	10/22/1982	Entire Patent	
	JJJ	WO	91/04086	7	Huo et al.	04/04/1991	Entire Patent	
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PTO/SB/08A	(10-96)
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Sheet of 5

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Group Art Unit						
Examiner Name		* •				
Attorney Docket Number	ARA-US-P1					

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2		
<del></del> -	KKK	W. DICKINSON BURROWS and JAMES H. NELSON, IV Fluidmakers: Preparation of Sterile Water for Injection in a Field Setting, Journal of Parenteral Science & Technology, May-June 1993, pp. 124-129, Vol. 47 No. 3	1		
	LLL	ANDREW W. COLLENTRO, Pharmaceuticals - Practical Microbial Control Techniques for Pharmaceutical Water Purification Systems, Ultrapure Water, March 2002, pp. 53-60	,		
	МММ	KIYOSHI TSUJI and SUSAN HARRISON, Dry-Heat Destruction of Lipopolysaccharide: Dry-Heat Destruction Kinetics, Appl. Environ. Microb., Nov. 1978, pp. 710-714, Vol. 36 No. 5	,		
	NNN	UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA), ITG Subject: Heat Exchangers to Avoid Contamination, Inspection Technical Guide (ITG) No. 34, July 31, 1979, pp. 1-3, at www.fda.gov/ora/inspect_ref/itg/itg34.hmtl (last visited March 29, 1999)	,		
	000	UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA), ITG Subject: Pyrogens, Still a Danger, Inspection Techincal Guide No. 32, January 12, 1979, pp. 1-3, at www.fda.gov/ora/inspect_ref/itg/itg32.hmtl (last visited March 29, 1999)	,		
	PPP	UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA), Guide to Inspections of High Purity Water Systems, pp. 1-9, at www.fda.gov/ora/inspect_ref/igs/high.html (last visited March 24, 1999)	1		
	QQQ	KIYOSHI TSUJI and A.R. LEWIS, Dry-Heat Destruction of Lipopolysaccharide: Mathematical Approach to Process Evaluation, Appl. Environ. Microb., Nov. 1978, pp. 715-719, Vol. 36 No. 5	2		
	RRR	HANS TRAEGER, Pharmaceuticals - The Presence of Bacteria, Endotoxins, and Biofilms in Pharmaceutical Water, Ultrapure Water, March 2003, pp. 17-22	/		
	sss	ALEX KONOPKA, Pharmaceuticals - Current Issues and System Design Considerations Affecting Pharmaceutical Water Systems, Ultrapure Water, March 2002, pp. 22-30	1		
	TTT	DAVID H. PAUL, Back to Basics - The Combining of Reverse Osmosis and lon Exchange, Ultrapure Water, July/August 2002, pp. 38-40	,		
	UUU	UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA) ITG Subject: Bacterial Endotoxins/Pyrogens, Inspection Techincal Guide (ITG) No. 40, March 20, 1985, pp. 1-10, at www.fda.gov/ora/inspect_ref/itg/itg40.html (last visited March 24, 1999)	1		

Examiner	Date	
Signature	Considered	

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INITO	ORA A TION	DIC	CL OCUDE	Application Number	10/618,133	
INFORMATION DISCLOSURE				Filing Date	07/11/2003	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Lixiong Li	
				Group Art Unit		
(4	use as many she	ets as	necessary)	Examiner Name		
Sheet	5	of	5	Attorney Docket Number	ARA-US-P1	

		OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	w	UNITED STATES FOOD AND DRUG ADMINISTRATION (FDA), ITG Subject: Water for Pharmaceutical Use, Inspection Technical Guide (ITG) No. 46, December 31, 1986, pp. 1-4, at www.fda.gov/ora/inspect_ref/itg/itg46.html (last visited October 9, 2003)	1
	www	EUROPEAN PATENT OFFICE Abstract - Pyrogen Adsorbent and Removal of Pyrogen Using the Same, JP 4-114661, April 15, 1992	
	xxx	EUROPEAN PATENT OFFICE Abstract - Removal of Pyrogen From Resin Carrier, JP 1-203046, August 15, 1989	
	YYY	EUROPEAN PATENT OFFICE  Abstract - Removal of Pyrogen From Aqueous Solution,  JP 59-112888, June 29, 1984	
	222	EUROPEAN PATENT OFFICE Abstract - Removal of Pyrogen in Water, JP 57- 171403, October 22, 1982	
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Examiner	Date	
Signature	Considered	
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